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ABSTRACT

A study was conducted to determine the effectiveness of a 5-hour- on-the-job writing course compared to a 30-hour college business communication course. The short business English refresher course focused on grammar, punctuation, and spelling; audience analysis; and direct, negative, and persuasive letters and memos. The college course focused on the same, but also included more in-depth assignments, and assumed that the students had already mastered writing mechanics in previous composition courses. Thirty-six subjects from the short course and 75 subjects from the college course participated, while 218 college students served as a control group. A pretest, posttest, and final test, all objective, were given to the three groups to collect data, as were pretest and posttest questionnaires, designed to determine students' confidence in their writing and their motivation for improving their skills. The results indicated that subjects in the short course made substantial gains in their writing skills and gained as much as the university students gained from their 30-hour course. Both groups retained their new knowledge and skills for at least one month after instruction. However, the subjects in the short course did not gain significantly in their writing confidence. (HTH)

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BUSINESS WRITING SHORT COURSES: MEASURING STUDENT GAIN

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Can employees really learn from short courses offered as part of their on-the-job training? Does the short time period of the course indicate an equally short retention period? Can short courses be effective in teaching such abstract and complex skills as writing?

As teachers of both adults taking short courses as part of their on-the-job training and students taking writing courses as part of their academic training, we wondered about comparisons between the two groups. Surely students got far more out of their 30-hour course than the employees from their 5-hour course--or did they? Did motivation or confidence influence students' abilities to improve writing skills? Could adults learn anything at all from a mere 5-hour short course? Would these gains be evident even one month later? Could adults gain confidence in their writing skills from the short course?

METHOD

To answer some of these questions we conducted a preliminary study comparing two different approaches to writing instruction--a short course and a college writing course.[1]

Short Course: The short course, a 5-hour course called Business English Refresher, is held on two consecutive days with 2 1/2 hours of

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instruction each session. It covers rules of grammar, punctuation, and spelling;[2] guidelines for concise, clear writing; audience analysis; and direct, negative, and persuasive letters and memos. Because time is so limited, the course depends heavily on lectures and visual aids of examples; class writing deals only with mechanics exercises.

Participants--professional, clerical, and teaching staff members of Iowa State University--volunteer for the course and get time off from work to take it. When they finish the course, they receive a certificate of completion, but no grade or report is given them or their superiors. All participants do writing and editing as part of their jobs. A questionnaire of the 36[3] participants (2 classes) in this group revealed that the average age was late twenties and the average educational level was 2.6 years of college.

College Course: The content of the 30-hour college writing course, Business Communication, also emphasizes the transactional writing that occurs between organizations, but the scope and depth of coverage are greater. Like the short course, Business Communication covers business writing principles such as audience analysis and positive tone as they relate to a writer's style and purpose; writing guidelines for achieving clear, concise prose; and direct, negative, and persuasive messages. Business Communication, of course, covers these areas in more depth than the Business English Refresher. The college course also covers topics not included in the short course, areas such as short reports, job letters and resumes, interviewing procedures, and communication theory. Students have a substantial writing assignment every week; out-of-class papers

are generally 1 1/2 - 2 pages of single spaced typing. In-class papers, limited by the 50-minute class periods, are generally about 500 words. Like the short course, the college course format is mostly lectures with visual aids of examples; except for several in-class papers, the students do not write much in class, mainly because of the time constraints resulting from teaching in a quarter term.

A major difference in the content of the two courses is that while the short course offers class instruction in grammar, punctuation, and spelling, the college course does not. The college students, who come into the course with two terms of freshman composition, are expected to write with an adequate level of mechanical correctness. Their papers must meet a department standard of correctness--no more than one serious error per one hundred words. Serious errors include fragments, comma splices, run-on sentences, dangling modifiers, subject-verb agreement, pronoun reference, parallel structure, and spelling. However, the students do receive indirect instruction on mechanics through the comments and marked errors on their returned papers and through class discussion of student and professional writing--both good and bad examples. Their textbook provides further instruction in mechanics if they want it. Occasionally, teachers use class time to discuss errors which occur frequently in an assignment.

For our experiment, we used 13 regular business communication sections (216 students) as a control group, and 4 business communication sections (75 students) to whom we taught the exact same material on grammar,

punctuation, and spelling that we use in our short course. The students in all sections are college juniors and seniors. Their college writing consists mostly of note taking; few of them have even written papers or essay exams since freshman composition. The majority of them are in the college of business or agriculture. Majors include business administration, marketing, finance, transportation, accounting, agricultural business, agronomy, animal science, farm operations, horticulture, speech, civil engineering, textiles and clothing, and computer science. Most students take the course because their curricula require it, although they do admit they need it.

Comparison of Short Course and College Course Participants: Although we were not able to get groups homogeneous in age, education, and experience for our study, our groups turned out to be surprisingly similar. Short course students were in their late twenties on the average; college course students were in their early twenties. Even the average educational level of the short-course students (2.6 years of college) compared closely with that of juniors and seniors in college. Perhaps the greatest difference between the groups is that the people in the short course need clear, correct writing in their daily work, whereas the people in the college course generally do not. We have to tell the college students they will need the skills we teach when they are employed and of course hearing is less persuasive than knowing from one's own experience.

Teachers: All students in the short course and college course treatment groups had the same three business communication teachers. The

three teachers team-taught the short course, and all sections of the college course treatment group were taught by one of the same three teachers. All have taught business communication at Iowa State for at least four years. The teachers worked closely together to insure the college level course was uniform across all sections. Because the control group was larger, the same three teachers could not teach all sections; other members of the business communication staff taught some sections. All teachers had taught business communication at Iowa State at least twice before, and all worked with a course manual which outlines course content and assignments.

Data Collection: We collected data from three groups: 1) 36 short course students, 2) 216 college students (college control group), and 3) 75 college students (college treatment group). To collect data, we used three tests and two questionnaires. The short course students and the college treatment group received a pre-test at the beginning of their course before any instruction, a post-test immediately after the short course or grammar review, and a final test one month after the post-test. Because the college control group did not receive the grammar review, they took only the pre-test and final test.

With one exception, all tests were administered under controlled conditions in the classroom. Students had 15 minutes to complete the test. They were not told they would also take a post-test and a final test, and instructors did not go over the tests with students until after the final test. No make-up tests were allowed. However, the short course students were no longer in contact with us by the time of the final test,

so their final tests were delivered to their offices and picked up the next day. Their instructions requested them to complete the test in 15 minutes.

Because many of the statistical tests we planned to conduct use pairs of data, students who did not take all 3 tests were dropped from the analysis. The group sizes indicate the number of students remaining for analysis.

All participants in the study also answered two questionnaires. Short course students had their initial questionnaire at the end of their second day. Since their time was so short, we felt we could not give them the questionnaire both at the beginning and end of the course. Because they needed some definitions of terms used in the questionnaire--definitions that were covered by class material--we decided that the second day would be best for our experiment and our students. Participants received their follow-up questionnaire along with the final test.

All college students received their initial questionnaire the second or third week of the quarter, after they had received enough class instruction to understand all the terms of the questions. They received their follow-up questionnaires in class, near the end of their quarter.

Questionnaires: The main purpose of the questionnaires was to determine students' confidence in their writing ability and their motivation for improving their writing. Short course participants rated on a five-point Likert scale their confidence in seven areas of writing: spelling, punctuation, grammar, sentence structure, organization, conciseness, and audience awareness. They also specified the proportion of their

work involving written communication and the amount of the writing that they compose themselves. Other questions provided categorical information on age and education.

College course participants received a similar questionnaire. As in the short course questionnaire, one question asked students to rate on a five-point Likert scale their confidence in the same seven areas of composition. Another question asked students to rate these seven areas on importance to their personal goals. To help determine motivation, this questionnaire also asked questions such as

1. Do you feel you will have to write letters and reports in your profession?
2. Do you enjoy writing?
3. Did you take this course because it was required?
4. Did you take this course pass-fail?

Other questions dealt with previous education and writing courses.

The follow-up questionnaires at the end of both the college and the short course asked participants to again rate their confidence, using 5-point scales, in the same areas of writing.

Tests: Pre-test, post-test and final test were all 28-item, multiple choice and true-false exams. Test items came from a larger, 100-item objective test whose reliability has been statistically tested during three years of use in the Iowa State business communication course. We chose our questions to meet two criteria: 1) we wanted approximately equal coverage of the four areas of spelling, grammar, punctuation, and style and tone, and 2) we wanted questions that students had answered

correctly about 50% of the time. By choosing items in the .5 difficulty range, we could select questions that were not so easy that everyone could answer them or so hard that no one could answer them. Thus, these questions test principles which have a good chance of being learned.

For pre-test, post-test, and final test, the first 8 questions tested spelling, the second 8 punctuation, the next 7 grammar, and the last 5 style and tone. The spelling portion consists of a short business letter with 8 words students must identify as right or wrong. Some words, such as "truly" and "personnel," are words used commonly in business. Others, such as "separate" and "definite," are words frequently misspelled by college students. The punctuation sentences illustrate the use of hyphens, colons with lists, and apostrophes, plus the use of commas and semi-colons in compound and complex sentences. Typical sentences that students marked right or wrong are:

1. We are forwarding your order; in addition, you will receive our spring catalog.
2. The explanation, that the credit manager offered Mrs. Smith, did not satisfy her.
3. The members of the committee were: Rich Smith, a senior, Ron, his brother, and Jim, his roommate.

The grammar sentences include dangling modifiers, pronoun shifts, pronoun reference and subject-verb agreement. Typical sentences the students marked right or wrong are:

1. Warm and cozy, the January winds will never touch you in our Alaskan Windcutter Jacket.

2. After one reads the report, you should pass it on to the person whose name appears next on the list.
3. The secretary as well as the department heads were invited to the reception.

The last group of questions ask students to identify sentences showing conciseness of style and audience-directed tone. For these questions, students select the best answer:

1. Which of these questions best shows that the writer has edited her question, eliminating unnecessary words?
   a. Please send me an operating instruction booklet for the Charles Dryer, Model AX.
   b. Would you be so kind as to tell me how to operate the Charles Dryer for ultimate efficiency?
   c. Now that I've received the Charles Dryer, would you be able to send me the instruction booklet which was omitted from the package?
   d. Would it be possible for you to explain to me how to operate the Charles Hair Dryer I bought from you last week?

In this study, pre-tests and final tests were identical. Because the short course participants took their pre-test and post-test only one day apart, we used a slightly different form for the post-test. The altered form tested the exact same principles but used different sentences as illustrations. If question 17 on the pre-test tested dangling modifiers, then the new sentence for question 17 on the post-test also tested dangling modifiers. The spelling questions remained

the same. All short course and college course participants took the same three tests.

FINDINGS

Means, reliabilities and validity--objective test: The expected score halfway between guessing and perfect achievement on the 28-item test would be 20.6. Table I shows that the calculated means are very close to the expected scores; therefore, the level of difficulty is acceptable according to most testing experts. The Kuder-Richardson reliability coefficients, which measure the consistency of the test (i.e. if the test were given to another group from the same population, they would perform at about the same level), range from .44 to .74. Table I gives means, standard deviations, reliability coefficients and standard errors of measurement for pre-test, post-test, and final test in the three groups--short course, college course treatment, and college course control. Mean scores between each possible pairing of the three groups were not different ($P = 0.05$), thus providing another indication that the short course students and the college students could be usefully compared.

The full objective test from which this shortened test was taken correlates 0.54-0.65 with a writing sample and 0.52-0.57 with the final course grade of the college control group. These figures show the objective test has a good correlation with business writing abilities.[4]

Score Gains: Tables II-IV show gains, standard deviations, and significance probabilities of the three groups from pre-test to post-test

(Table II), pre-test to final test (Table III), and post-test to final test (Table IV). All groups made significant gains. The college course treatment students gained twice as much as the college course control students; the short course students gained more than three times as much as the college control students. Because the test contains only 28 items, partitioning it into subtests raises reliability questions, but item analysis shows that gains are distributed over all areas of the test. The short course students made slightly more gain on their final test (one month after completion of course) than on their post-test (end of two-day course). The college course students lost a little between post-test and final test. Although neither gain nor loss is statistically significant ($P = 0.71$ for college course; $P = 0.32$ for short course), these figures do indicate that the material was not just memorized one day and forgotten the next.

Since the short course students did not take their final test under controlled conditions, it might be assumed that their scores would rise. However, their greatest gains came in the grammar sections, where answers would be difficult to look up, not in the spelling section, where answers could be easily checked. The fact that their score would have no impact on them personally probably precluded time-consuming searches for answers.

Table V shows the t-values and significance probabilities of comparisons between the score gains for the various groups (pre-test to final test gains). Since all three groups begin at the same level (similar pre-test scores), these comparisons are meaningful. The most significant difference is between the gains of the college control group versus the gains of the short course group ($P = 0.003$). Short course students received only 5 hours of instruction (versus 30 for college students), had no writing

assignments of paragraphs or longer compositions and thus received no individual feedback on their writing. Yet on a test of mechanics, style, tone and organization, their gains surpassed those of the college students.

There was also a difference between the gains of the college control group and the college treatment group ($P = 0.07$). The college treatment students, who were taught the grammar, punctuation, and spelling materials, did better on the objective test than the college control students, who were not taught those materials.

Confidence--Short Course: Table VI shows the confidence rating data of the short course students. Spelling and punctuation received the highest confidence ratings on both questionnaires (during the course and one month later), perhaps because participants are sure of what is included in these categories. Organization received the lowest ratings both times. However, the gains in each category are small. Even the total gain of .20 is small.

To determine the accuracy of these confidence ratings, we correlated pre-test scores with the confidence ratings of the first questionnaire. The low correlation coefficient ($r = 0.33$) indicates that adults are not keenly aware of their competence in writing.

In order to determine what part confidence might play in any changes in test scores from pre-test to post-test, we correlated short course participants' summed confidence ratings with their test gains or losses using the X^2 statistic. Both confidence ratings and gain scores were coded into categories. The gain categories adjusted actual gains to

possible gains so that high scores were not penalized by their opportunities for lesser gains. The X^2 value of 7.33 with a significance probability of 0.49 indicated that confidence played no significant part in test gains.

Motivation--Short Course: In order to determine what part motivation might play in any changes in test scores between tests, we asked short course participants to mark on the questionnaire the proportion of their work which included written communication (average: 45%). These answers were compared to test gains or losses using the X^2 statistic. (One categorical variable was the amount of written communication; the second was test score changes coded into categories.) Again these categories adjust actual gains to possible gains so that high scores are not penalized by their opportunities for lesser gains. The X^2 value of 5.96, $P = 0.43$, indicates that motivation played no significant part in test gains. We made similar analyses with the answers to questions asking participants how much of the writing they composed themselves and how many years of schooling they had completed. No association with gainscore was apparent in either case (X^2 for composing = 4.4, $P = 0.62$; X^2 for education = 2.6, $P = 0.86$).

Confidence--College Course: Table VII summarizes the data collected from the item on the two questionnaires asking the college students to rate their ability in eight areas of composition. The mean sum of confidence (based on a 5-point scale) at the beginning of the course was 22.70. The mean sum at the end of the course was 24.42, a significant gain of 1.72 ($P = 0.0001$). Unlike the students in the 5-hour course,

college students appeared to gain confidence in their writing skills from their 30-hour course. Content, organization, and spelling showed the highest initial and follow-up ratings; conciseness made the largest gain. Confidence ratings were correlated with pre-test scores and yielded a Pearson product-moment coefficient of 0.56, indicating that students are reasonably accurate in judging their writing skills. A breakdown of the objective test into sub-tests, although not too reliable because of the small number of questions involved, indicated students are especially accurate in rating their spelling proficiency ($r = 0.63$), perhaps because the category of spelling is more clearly defined for them than the other categories.

To determine if confidence influenced improvement from pre-test to final test, we used the X^2 statistic to study the association of students' rated confidence with their score gains. The analysis used the same coding as that in the short course confidence analysis. The categories for test score gains again adjusted actual gains for possible gains so that the high scores would not be penalized by lesser gains. The second categorical variable covered the sum of each college student's ratings of confidence in the 7 areas of writing. The sum of each college student's confidence ratings showed no significant association ($X^2 = 7.78$, $P = 0.46$) with score gains, thus indicating that confidence did not influence the gains made on the test.

Motivation--College Course: Although 93% of the college students believed they would have to write in their future jobs, when their answers were analyzed in conjunction with the score gains on the test using the

X^2 statistic, they yielded a probability of 0.18 (X^2 = 3.45) indicating that motivation was only a slight factor in the gains of college students.

Students also rated the importance to their personal goals of the 7 categories of composition listed on the questionnaire. Their ratings were coded in the same manner as confidence ratings. The sum correlated with score gains yielded a probability of 0.45 (X^2 = 7.82) indicating again that motivation had no effect on the gains they made from pre-test to final test.

SUMMARY AND CONCLUSIONS

No statistics we know of are available on the efficacy of business writing short courses, perhaps because the time element prohibits acquiring such statistics. To our knowledge, this study provides the first such data. With an admittedly small sample size and a limited test, this study provides evidence of student gains possible in short courses, even in such an abstract and complex skill as writing.

Skills: Adults, who volunteered for the business communication short course, made substantial gains in their writing skills as measured by the objective test used. In fact, these university employees gained as much from their 5-hour course as the university students gained from their 30-hour course (the gains of both groups were statistically significant). Furthermore, the short course students, like the college course students, retained their new knowledge and skill for at least one month after instruction, probably because both groups continued to use

the material either in jobs or class assignments. Before instruction short course students and college course students showed similar levels of writing skills.

All gains in this study were measured by an objective test on usage, style, tone, and organization. This test had been validated with writing samples and course grades from college business communication students. However, we were unable to obtain adequate writing samples from the university employees who took the short course. An examination of such writing samples should be fruitful for further research projects.

Confidence: Short course students were not as accurate in assessing their writing skills as were college students. This finding made sense, since college students have been recently graded on writing abilities while the short course students probably have received less feedback specifically on writing skills. Furthermore, the university employees did not gain significantly in confidence during their short course. Apparently such gains require further immersion in the area of study since college students in a full term course did show confidence gains. This confidence issue also asks a question of our techniques: How can teachers instill confidence within the limited confines of a short course? Although the experimental design prevented us from showing our students pre- or post-test scores before they finished the questionnaires which measured confidence, the significant gains these test scores showed for most students could probably help bolster confidence. In spite of the fact that the data showed that confidence and test score gains do not correlate, the issue is one which concerns us, since a person who has a

skill, but is not confident of it, may try to avoid using that skill.

Motivation: Although our test results indicate that motivation does not influence test score gains, we suspect that motivation has a more prominent role than we were able to determine. It is likely that the necessity of writing clearly and accurately on the job is more of a motivator than is a grade. We see motivation as another fruitful area for further research.

This was a preliminary study, which yielded some interesting results on the efficacy of short courses. A replication should be conducted using larger sample sizes, more uniform conditions, a longer test, and writing samples.

NOTES

[1] See Carol David, "Evaluating an Instrument for Testout in a Business Communication Course," Ph.D. dissertation, Iowa State University, 1981.

[2] The course participants, who specify the topics they wish covered, always request these rules.

[3] Although the number of students in this group is small, this particular portion of the study is a replication. The first group of short course students numbered 30. In the first group we used the same test for both pre-test and post-test and found, of course, that students remembered the questions. The low reliability of the post-test of the original group forced us to eliminate them from the study.

[4] David, p. 80.

Table I. Means, Standard Deviations, and Reliabilities for Pre-test, Post-test, and Final Test, for All Groups.

Group	N	Mean Score	Standard Deviation	Reliability
College course control: pre-test	216	19.62	3.48	.79*
College course control: final test	216	20.23	3.42	.79*
College course treatment: pre-test	75	20.25	2.90	.44
College course treatment: post-test	75	21.65	3.26	.65
College course treatment: final test	75	21.67	2.98	.57
Short course pre-test	36	20.28	3.78	.70
Short course post-test	36	21.83	3.38	.69
Short course final test	36	22.50	3.70	.74

* from full 100-item test

Table II. Score Gains, Standard Deviations, and Significance Probabilities--Pre-test to Post-test.

Group	Gain	Standard Deviation	Significance Probability
College course treatment	1.35	2.47	.0001
Short course	1.55	3.02	.0039

Table III. Score Gains, Standard Deviations, and Significance Probabilities--Pre-test to Final Test

Group	Gain	Standard Deviation	Significance Probability
College course control	.62	2.58	.0023
College course treatment	1.25	2.52	.0001
Short course	2.09	3.45	.0013

Table IV. Score Gains, Standard Deviations, and Significance Probabilities--Post-test to Final Test

Group	Gain	Standard Deviation	Significance Probability
College course treatment	- 0.13	2.66	.71
Short course	0.50	2.95	.32

Table V. T-Values and Probabilities for Comparisons of Score Gains between Groups

Comparison	T-Value	Significance Probability
College course control vs short course	3.00	.003
College course control vs college course treatment	1.83	.07
College course treatment vs short course	1.45	.15

Table VI. Short Course Confidence Data

Category	Initial Mean	Standard Deviation	Mean Gain	Standard Deviation of Gain	Significance Probability of Gain
Spelling	3.68	.97	.07	.77	.63
Punctuation	3.48	.74	-.24	.83	.13
Grammar	3.27	.78	0	.77	1.0
Sentence Structure	3.22	.77	.03	1.05	.86
Organization	3.05	.77	.10	.98	.57
Conciseness	3.29	.75	.14	.58	.21
Audience Awareness	3.13	.69	.10	.86	.52
Total	23.12	3.93	.20	3.18	.51

Table VII. College Group Confidence Data

Category	Initial Mean	Standard Deviation	Mean Gain	Standard Deviation of Gain	Significance Probability of Gain
Spelling	3.35	1.03	.18	.69	.0001
Punctuation	3.13	.86	.22	.75	.0001
Grammar	3.18	.82	.27	.72	.0001
Sentence Structure	3.24	.65	.17	.65	.0002
Organization	3.38	.68	.28	.72	.0001
Conciseness	3.20	.64	.31	.71	.0001
Audience Awareness	3.26	.66	.26	.73	.0001
Total	22.70	3.66	1.72	3.08	.0001